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## I claim:

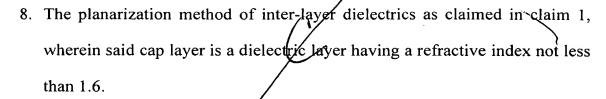
- 1. A planarization method of inter-layer dielectrics, comprising the steps of:
  providing a semiconductor substrate already completing the basic process of
  forming devices such as a field oxide, a source, a drain, and a gate thereon;
- forming a dielectric layer used as an inter-layer dielectric on said semiconductor substrate, lapping said dielectric layer by means of the chemical mechanical polishing; and

forming a cap layer of high refractive index on said lapped dielectric layer.

- 2. The planarization method of inter-layer dielectrics as claimed in claim \( \), wherein said gate comprises from bottom to top a tunneling oxide layer, a floating gate, a dielectric layer, and a control gate.
- 3. The planarization method of inter-layer dielectrics as claimed in claim 2, wherein said floating gate and said control gate are composed of polysilicon.
- 4. The planarization method of inter-layer dielectrics as claimed in claim \( \)1, wherein said dielectric layer is a borophosphosilicate glass layer.
- 5. The planarization method of inter-layer dielectrics as claimed in claim 1, wherein said cap layer is a silicon nitride layer capable of being transmitted by ultra-violet light.
- 6. The planarization method of inter-layer dielectrics as claimed in claim 1, wherein said cap layer is a silicon nitrogen-oxide layer.
- 7. The planarization method of inter-layer dielectrics as claimed in claim 1, wherein said cap layer is a silicon rich oxide layer having a refractive index not less than 1.6.

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9. A planarization method of inter-metal dielectrics, comprising the steps of: providing a semiconductor substrate having a plurality of metalinterconnects formed thereon;

forming a dielectric layer used as an inter-metal dielectric on said substrate, lapping said dielectric layer by means of the chemical mechanical polishing; and

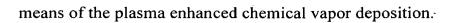
forming a cap layer of high refractive index on said lapped dielectric layer.

- 10. The planarization method of inter-metal dielectrics as claimed in claim\9, wherein said metal-interconnect is composed of aluminum, aluminumcopper alloy, aluminum-silicon-copper alloy, or copper.
- 11. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said dielectric layer is a phosphosilicate glass layer.
- 12. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said dielectric layer is a fluorosilicate glass layer.
- 13. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said dielectric layer is a low K dielectric layer.
- 20 14. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said dielectric layer is a silicon oxide layer formed by means of the plasma enhanced chemical vapor deposition.
  - 15. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said dielectric layer is a tetraethyl-orthosilicate layer formed by

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16. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said cap layer is a silicon nitride layer capable of being transmitted by ultra-violet light.

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- 17. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said cap layer is a silicon nitrogen-oxide layer.
- 18. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said cap layer is a silicon rich oxide layer having a refractive index not less than 1.6.
- 19. The planarization method of inter-metal dielectrics as claimed in claim 9, wherein said cap layer is a dielectric layer having a refractive index not less than 1.6.